CHAPTER VIII .- (Continued.) "I shot it this morning," he continued, "we'll use it."

"What do you mean?" asked Alta-

"I mean to blow up the bears en masse with 100 pounds of powder." "But where is the powder?" exclaim-

ed his friends. "In the magazine. This passage I dug will lead to it. I made it pur-

"And where is the mine to be?" in-

quired Altamont. "At the farthest point from the

house and stores." "And how will you manage to entice

the bears there, all to one spot?" "I'll look after that. Let us set to work. We have 100 feet more to add

to our passage to-night, and that is no easy matter. There are five of uswe can take turns. Bell will begin, and we will lie down and sleep mean-

One by one, all went to work, and in ten hours-that is to say, about 8 in the morning-the gallery was entirely

With the first streak of day the doctor reconnoitered the position of the enemy. The patient animals were stiff occupying their old position, prowling up and down and growling.

Hastening away to the mine, he had a strong stake fixed firmly on the granite foundation, on the top of which the dead fox was fastened. A rope was attached to the lower part of the stake, long enough to reach the powder stores.

"This is the bait," he said, pointing to the dead fox, "and here is the mine," he added, rolling in a keg of powder containing about 100 pounds.

"And how will you manage?" asked Altamont.

"By hauling in this rope we leave the dead fox exposed to view. The bears are so famished with their long fasting that they won't lose much time in rushing toward their unexpected meal. Well, just at that very moment, I shall set fire to the mine, and blow up both the guests and the meal."

"Capital! Capital!" shouted John-son, who had been listening with intense interest.

Hatteras said nothing, for he had such absolute confidence in his friend that he wanted no further explanation. But Altamont must know the why and wherefore of everything."
"But doctor," he said, "can you

reckon on your match so exactly that you can be quite sure it will fire the mine at the right moment?"

"I don't need to reckon at all; that's a difficultly easily got over."

"They you have a match a hundred feet long?" "No."

"You are simply going to lay a train

of powder." "One of us must light the powder," said Johnson. "I'm ready-ready and willing."

"Quite useless to risk your life, ing out his hand. "All our lives are

"We have an electric battery," he continued, "and lines long enough to serve our purpose? We can fire our mine whenever we please, in an in-

stant, and without the slightest danger." "Hurrah!" exclaimed Johnson. "Hurrah!" echoed the others, without heeding whether the enemy heard

them or not. The doctor's idea was immediately carried out, and the lines connected. By 9 o'clock everything was ready. Johnson was stationed in the powder magazine, in charge of the cord which held the bait.

"Now," said Clawbonny to his companions, "load your guns, in case our assailants are not killed. Stand beside Johnson, and the moment the explosion is over rush out."

"All right," said Altamont. "We have done all we can to help ourselves. May heaven help us!"

Hatteras, Altamont and Bell repaired to the powder magazine, while the doctor remained alone beside the pile. Soon he heard Johnson's voice the distance calling out "Ready!"

"All right!" was the reply. Johnson pulled the rope that brought the body of the fox on top the ice. The next instant the bears had eager-

ly rushed to seize the booty. "Fire!" called out Johnson, and at once the electric spark was sent along the lines right into the keg of powder. A formidable explosion ensued; the house was shaken as if by an earthquake, and the walls cracked asunder. Hatteras, Altamont and Bell hurried out, with the guns. But four of the bears lay dead, and the fifth, roasted, though alive, was scambering away in terror, as fast as his legs

could carry him. "Hurrah!" Three cheers for Clawbonny!" they shouted, and overwhelmed the doctor with plaudits and thanks. Next morning there was a singular rise in the temperature, the thermom-

eter going up to 15 degrees above zero. This comparative heat lasted several days. In sheltered spots the glass rose as high as 31 degrees, and symp toms of a thaw appeared.

The ice began to crack here and there, and jets of salt water were thrown up, like fountains in an English

park. A few days later the rain fell in torrents.

For about a fortnight hunting was the principal occupation. There was an abundant supply of fresh meat to be had. They shot partridges, ptarmigans and snow ortolans, which are delicious eating.

"Do you think we shall have a long spell of this weather, Dr. Clawbonny?" asked Johnson.

"No, my friend, I don't; it is a last blow from the cold. You see these are his dominions, and he won't be driven out without making some resistance."

"What is the reason?" "Because generally there is a periodical frost in the month of May, and it is coldest from the 11th to the 13th.

That is the fact." The doctor was right, for the cold lasted till the end of the month, and put an end to all their hunting expeditions. The old, monotonous life indoors recommenced.

CHAPTER IX.

During this compulsory leisure, Clawbonny determined to have a talk with the captain on an important subject—the building of a sloop out of the planks of the Porpoise.

The doctor hardly knew how to be gin, as Hatteras had declared so vehemently that he would never consent to use a morsel of American wood; yet it was high time he were brought to reason, as June was at hand, the only season for distant expeditions, they could not start without a ship.

He thought over it a long while, and at last drew the captain aside, in the kindest, gentlest way: "Hatteras, do you believe I'm your

friend?" "Most certainly I do," replied the captain, earnestly; "my best, indeed, my only friend."

"And if I give you a plece of advice without your asking, will you consider my motive is perfectly disinterested?"

"Yes, for I know you have never been actuated by self-interest. But what are you driving at?"

"Walt, Hatteras: I have one thing more to ask. Do you look on me as a true-hearted Englishman like yourself, anxious for his country's glory?" Hatteras looked surprised, but simply said: "I do."

"You desire to reach the north pole," the doctor went on, "and I understand and share your ambition, but to achieve your object you must employ the right means."

"Well, and have I not sacrificed everything for it?"

"No, Hatteras, you have not sacrificed your personal antipathies. Even at this very moment I know you are in the mood to refuse the indispensable conditions of reaching the pole."

"Ah! it is the boat you want to talk about, and that man-

"Hatteras, let us discuss the question calmly, and examine the case on brave fellow," replied the doctor, hold- all sides. The coast on which we find ourselves at present may terminate precious, and they will be all spared, abruptly; we have no proof that it thank God! your present information prove correct, we ought to come to an open sea during the summer months. Well, supposing we reach this arctic ocean and find it free from ice and easy to navigate, what shall we do if we have no ship?"

Hatteras made no reply. "Tell me, now, would you like to find yourself only a few miles from the

pole and not be able to get to it?" Hatteras still said nothing, but bur-

ied his head in his hands. "Besides," continued the doctor, "look at the question in its moral aspect. Here is an Englishman who sacrifices his fortune, and even his wife, to win fresh glory for his country, but because the boat which bears him across an unknown ocean, touches the new shore, happens to be made of the planks of an American vessel-a castaway wreck of no use to anyone-will that lessen the honor of the discovery? If you yourself had found the hull of some wrecked vessel lying deserted on the shore, would you have hesitated to make use of it; and must not a sloop built by four Englishmen and manned by four Englishmen be English from keel to gunwale?"

Hatteras was still silent.

'No," continued Clawbonny, "the real truth is, it is not the sloop you care about; it is the man."

"Yes, doctor, yes," replied the captain. "It is this American I detest: I hate him with a thorough English hatred. Fate has thrown him in my path."

"To save you!"

"To ruin me. He seems to defy me. and speaks as if he were lord and master. He thinks he has my destiny in his hands, and knows all my projects. Didn't we see the man in his true colors when we were giving names to the different coasts? Has he ever avowed his object in coming so far north? You will never get out of my head that this man is not the leader of some expedition sent out by the American govern-

ment." "Well, Hatteras, suppose it is so went outside, and paced up and down does it follow that this expedition is to search for the north pole? May it not be to find the Northwest Passage? But anyway, Altamont is in complete

ignorance of our object, for neither Johnson, nor Bell, nor myself, have ever breathed a word to him about it, and I am sure you have not."

"Well, let him always remain so." "He must be told in the end, for we can't leave him here alone."

"Why not? Can't he stay here in

Fort Providence?" "He would never consent to that, Hatteras; and, moreover, to leave a man in that way, and not know whether we might find him safe when we came back, would be worse than imprudent, it would be inhuman. Altamont will come with us; he must come. But we need not disclose our projects; let us tell him nothing, but simply build a sloop for the ostensible purpose of making a survey of the

Hatteras could not bring himself to consent, but said:

"And suppose the man won't allow his ship to be cut up?"

"In that case, you must take the law in your own hands, and build a vessel in spite of him."

"I wish to goodness he would refuse, "He must be asked before he can re-

fuse. I'll undertake the asking," said Clawbonny, He kept his word, for that very same night, at supper, he managed to turn

the Conversation towards the subject of making excursions during summer for hydrographical purposes. "You will join us, I suppose, Altamont," he said.

"Of course," replied the American. "We must know how far New America extends."

Hatteras looked fixedly at his rival, but said nothing. "And for that purpose," continued

Allamont, "we had better build a little ship out of the remains of the Porpoise. It is the best possible use we can make of her."

You hear, Bell," said the doctor, eagerly. "We'll all set to work to-morrow morning."

In the end of May the temperature again rose, and spring returned for good and all. Rain fell copiously, and before long the melting snow was running down every little slope in falls

But while they were building their boats arguments spring up.

Dr. Kane was the first bone of contention on this occasion, for the jealous Englishman was unwilling to grant his rival the glory of being a discoverer, saying that it was by mere chance he had made a discovery.

"Chance!" interrupted Altamont, hot-"Do you mean to assert that it is not to Kane's energy that we owe his great discovery?"

"I mean to say that Dr. Kane's name is not worth mentioning in a country made illustrious by such names as Parry, and Franklin, and Ross, and Belcher, and Penny; in a country where the seas opened the Northwest Passage to an Englishman—McClure!"
"McClure!" exclaimed the American. "Well, if ever chance favored anyone it was that McClure. Do you pretend to deny it?"

Hatteras started to his feet, and Baid:

"I will not permit the honor of an English captain to be attacked in my presence any longer!"

"You will not permit!" echoed Altamont, also springing erect. "But these are facts, and it is out of your power to destroy them!' "Sir!" shouted Hatteras, pale with

"My friends!" interposed the doctor;

"pray be calm. This is a scientif point that we are discussing." But Hatteras was dead to reason

now, and said angrily: "I'll tell you the facts, sir." "And I'll tell you," retorted the irate

American. "Gentlemn," said Clawbonny, in firm tone, "allow me to speak, for I know the facts of the case as well as and perhaps better than you, and I

can state them impartially. "Yes, yes!" cried Bell and Johnson, who had been anxiously watching the

"Well, go on," said Altamont, finding

himself in the minority. With charts the doctor told the history of McClure's voyage. Still Hatteras and Altamont were dissatisfied. "Well, if arriving on one side and

leaving at the other is not going

through, I don't know what is!" said Hatteras. Yes, but he went 470 miles over ice fields," objected Altamont.

"What of that?" "Everything; that is the gist of the whole argument. It was not the Investigator that went through."

"Altamont," said the doctor, "we all consider that you are wrong.' "You may easily do that," returned the American. "It is four against one,

but that will not prevent me from holding my own opinion." "Keep it and welcome, but keep it to yourself, if you please, for the fu-

ture," exclaimed Hatteras. "And pray what right have you to speak to me like this, sir?" shouted

Altamont, in a fury. "My right as captain," returned Hatteras, equally angry.

"Am I to submit to your orders, then?"

The doctor did not allow him to rich, which is also a comfort. proceed, for he really feared the two antagonists might come to blows. Bell and Johnson seconded his endeavors to make peace, and, after a few conciliatory words, Altamont turned on his heel, and walked carelessly away, whistling "Yankee Doodle." Hatteras

(To be continued.)

with rapid strides. In about an hour he came back, and retired to bed without saying another word.

ABOUT FARTH'S ENVELOPE.

Three Layers of Air-Cold and Gale,

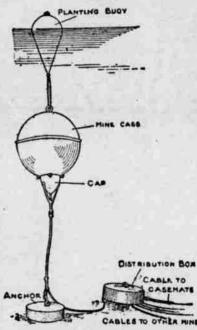
of High Altitudes. The new science of the air is the result of many hundred kite and sounding balloon flights made by day and by night in fair weather and foul, over land and sea, at all seasons of the year and from the equator to the arc tic circle, an exchange says. Most people know that the warm air surrounding the earth is only a thin belt, but we do not most of us know that at ten miles above the earth it would not only be bitterly cold, but

the sun would appear quite different. The air is stratified in three more or less distinct layers. In the lowest we live. It extends about two miles and is a region of turmoil, whimsical winds, cyclones and anticyclones. At two miles the freezing point is reached and then there is a second stratum extending upward for about another six miles. Here the air grows steadfly colder and drier, the lowest temperature recorded being 167 degrees below freezing point. Here the air moves in great planetary swirls produced by the spinning of the earth on its axis, so that the wind always blows in the same easterly direction.

The greater the height the more furious is the blast of this relentless gale. After this layer comes the third or isothermal stratum, discovered almost simultaneously by M. de Bort and Dr. Assmann. This is called the permanent inversion stratum, because the temperature increases with the height reached. But the temperatures so far recorded in the second stratum are not high, being far below zero Fahrenheit, generally somewhere from

122 degrees to 140 degrees below it. Here the air no longer swirls in a planetary circle. The wind may blow in a direction contrary to that in the second layer. And the air invariably is excessively dry. Where this third stratum ends no one knows. But it must be at more than eighteen miles above the earth, for sounding balloons have reached this height and have not found the end of the permanent inversion layer of air. When the influence of the upper regions of air upon the lower is fully understood it may be possible to foretell the weather not erely for a day, but for a week.

## AMERICAN SUBMARINE MINE.



OPERATED FROM SHORE.

The type of submarine mine planted by the United States Coast Artillery Corps for blowing up the vessels of the enemy in times of war is shown in this drawing. At the present time ships known as mine planters, with detachments of troops on board, are busy planting such mines for practice purposes. The drawing gives an excellent idea of the mechanism of such a mine and its manner of discharge by electric current from the shore. The buoy rising above the surface of the water is used to mark the mines .-Popular Mechanics.

## Lawyer's Instinct.

A barrister noted for absence of mind was once witnessing a representation of "Macbeth," and on the witches replying to the Thane's inquiry that they were "doing a deed without a name," catching the sound of the words, he started up, exclaiming, to the astonishment of the audience:

"A deed without a name? Why, it's void; it's not worth sixpence."-Tit-Bits.

Not Likely to Become General. Of course it was the daughter or an American millionaire who appeared at London's famous roller skating rink wearing a pair of heavily jeweled skates! We should all be terribly disappointed if any other girl had thought of such a thing first! "Most assuredly, and woe to you if But the idea is not likely to be wide ly imitated, even among the ultra

One Instance.

Father-You never heard of a man getting into trouble by following a good example.

Son-Yes, sir; I have-the counterfeiter .- Tit-Bits.

With most of your friends you treasure up things they do or say that offend yo



Visitor-What have you in arctic literature? Librarian—Cook and Pearyodicals.

Little girl in the country after a long gaze at some cows: "Mister, are them meat cows are milk cows?"

Griggs-So Tom is married, eh? Briggs-Yes, for the present.. He's married to an actress.-Boston Tran-

"Did the-ah-prisonah offer anyah—resistance?" "Only a shilling, your wushup, and I wouldn't take it.' -M. A. P.

Salesman-Shirt, sir. Will you have a negligee or a stiff bosom? Customer -Negligee, I guess. The doctor said I must avoid starchy things.

George-Do you think that I'm good enough for you, darling? Darling-No, George; but you're too good for any other girl.—Illustrated Bits.

She-History repeats itself, you know. He-Not always. You never heard of a man eloping more than once, did you?-Yonkers Statesman.

"Have you broken yourself of the habit of sleeping in church?" "Yesentirely." "Congratulations! How did you do it?" "Quit going to church." -Cleveland Leader.

"How much does it cost to get married?" asked the eager youth. "That depends entirely on how long you live," replied the sad-looking man .-Philadelphia Record.

"The railroads are discharging all men with gray hair." "Most of the married men will be safe." "How "The majority of them are bald."-Houston Post.

"Am I really and truly your first and only love?" queried the dear girl. "No," answered the truthful drug clerk, "but you are something just as good."-Chicago Daily News.

"Why it is that novels are so much more popular with the women than with the men?" "In a novel the fellow invariably asks the girl to be his wife."-Chicago Record-Herald. Club Waiter (fishing)-I dreamed

last night, sir, that you gave me a five-dollar bill. Stingy Member-Indeed, James! That's a little high for a tip; but-er-you may keep it.-Boston Transcript. "Talk about your realism, this show

looks awful natural to me." "How "Six months have elapsed since the play started and the housemaid hasn't done any housework yet." -Louisville Courier-Journal. Suburbs-It is simply great to wake

up in the morning and hear the leaves whispering outside of your window. Cityman-It is all right to hear the leaves whisper, but I never could stand hearing the grass mown.

"Now, Willie," said the teacher, "if eggs were 60 cents a dozen and your mother had 20 cents, how many eggs would you have for breakfast?" eggs," answered Willie. "We'd have mush."-Washington (D. C.) Herald.

Tommy-What did you think of the play "Julius Caesar" last night? Billy Oh, it was a fake. "Why so?" "'Cause when they killed Julius Caesar and the curtain went down, he comes out and bows to the audience. He wasn't dead at all!"

"I must warn you, dearest," he said, "that after we are married, you will very likely find me inclined to be arbitrary and dictatorial in my manner." "No matter," she replied cheerfully. "I won't pay the slightest attention to what you say."

Mistress (hurrying frantically)-Mary, what time is it now? Maid-Half past two, mum. Mistress-Oh. I thought it was later-I still have twenty minutes to catch the steamer. Maid -Yes, mum. I knew ye'd be rushed, so I set the clock back thirty minutes to give ye more time.-Puck.

"You simply cannot trust anybody!" declares the lady. "My maid, whom I had the utmost confidence in, left me suddenly and took with her my beautiful pearl brooch." "That is too bad." sympathizes the friend. "Which one was it?" "That very pretty one I smuggled through last spring."-Life.

"Pshaw!" exclaimed Miss Yerner, impatiently, "I'm sure we will miss the opening number. We've waited a good many minutes for that mother of mine." "Hours, I should say," Mr. Sloman retorted rather crossly. "Ours? Oh, George!" she cried, and laid her blushing cheek upon his shirt front .-Catholic Standard.

"Little boy," asks the well-meaning reformer, "is that your mamma over yonder with the beautiful set of furs?" Yes, sir," answers to, bright lad. "Well, do you know what poor animal it is that had to suffer in order that your mamma might have the furs with which she adorns herself so proudly?" "Yes, sir-my papa."